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United States Department of Agriculture
U.S. EXTENSION SERVICE
Washington, D. C.

May 1, 1943

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THE RELATION OF CROP AND LIVESTOCK PRODUCTION
TO HUMAN POPULATION - UNITED STATES - 1916-18 AND 1939-43

Prepared by
Economics Section

Because of the current interest in livestock numbers and production during World War I as compared with that of the current war, the following data have been prepared. Total grain-consuming animal units less horses and mules per capita have ranged from 75.5 to 98.2 percent of the 1916-18 average during the years 1939-43 (table 1). In spite of the rapid increases in livestock numbers during recent years, they do not appear to be burdensome when compared on a per capita basis with numbers during the first World War. Although sheep and chicken numbers kept pace with the increase in population, they did not offset the other classes of livestock that failed to keep up in production (tables 2 and 3).

Yearly production of livestock and livestock products (tables 4-5) shows a more favorable relationship to United States population than does livestock on farms January 1. The production of cattle and calves was the only class of livestock failing to keep pace with human population. Since domestic consumption of meat animals is not considered in these data, imports and exports have been omitted. Although export figures for recent years are not available for publication, civilian, military, and lend-lease requirements will no doubt maintain a high level of demand for all livestock and livestock products produced during the war and immediate post-war period. This demand should be sufficient to maintain prices at ceiling levels.

Livestock numbers and production have increased much faster than feed grain production. Present trends indicate that feed grain supplies will be the limiting factor in livestock production rather than demand for livestock and livestock products. Wheat production is the only major food and feed crop that has kept pace with the increase in population (tables 6 and 7).

Table 1.-Livestock animal units 1/: Numbers on farms, January, 1916-18 and 1939-43, total United States population 2/, and percent 1939-43 livestock animal units per capita 2/ is of 1916-18 average

	1916	1917	1918	:	1939	1940	1941	1942	1943
Number, millions	111	110	116	:	112	127	122	132	148
U. S. population <u>2</u> /	100.0	101.5	102.9	:	130.4	131.5	132.6	134.0	135.6
Per capita animal units	1.11	1.09	1.13	:	.86	.96	.92	.98	1.09
Percent of 1916-18 - average per capita <u>2</u> /				:	77.5	86.5	82.9	88.3	98.2

- 1/ Excludes horses and mules from all grain-consuming animal units.
Compiled from reports of B. A. E.
2/ Includes U. S. civilian and armed forces.
Compiled from Bureau of the Census data.

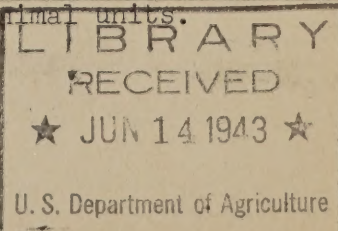


Table 2.-Livestock: Selected classes, numbers on farms,
United States, January, 1916-18 and 1939-43

Item	1916	1917	1918	:	1939	1940	1941	1942	1943
Livestock:				:					
Dairy cows, thous.	20,752	21,212	21,536	:	24,600	24,926	25,478	26,398	26,946
Other cattle, "	40,686	49,767	51,504	:	41,429	43,271	45,983	48,304	51,124
Hogs, "	60,596	57,578	62,931	:	50,012	61,115	54,256	60,377	73,660
Sheep, "	40,010	38,886	39,664	:	51,595	52,399	54,283	55,735	55,089
All chickens, mil.	369	359	363	:	419	438	423	475	540
Livestock per 1,000 population, U. S.: <u>2/</u>				:					
Dairy cows	207	209	209	:	189	190	192	197	199
Other cattle	467	490	501	:	318	329	347	361	377
Hogs	606	568	612	:	384	465	409	451	543
Sheep	400	383	386	:	396	399	409	416	406
All chickens	3,693	3,523	3,532	:	3,210	3,334	3,188	3,545	3,983

1/ Preliminary.

2/ Includes U. S. civilian and armed forces.

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Table 3.-Livestock: Numbers on farms January 1, 1916-18 average, and percent
1939-43 is of 1916-18 average per 1,000 population, United States

Item	:	1916- 1918 average	:	Percent of 1916-18 average				
	:		:	1939	1940	1941	1942	1943
Dairy cows	:	208	:	90.9	91.3	92.3	94.7	95.7
Other cattle	:	486	:	65.4	67.7	71.4	74.3	77.6
Hogs	:	595	:	64.5	78.2	68.7	75.8	91.3
Sheep	:	389	:	101.8	102.6	105.1	106.9	104.4
All chickens	:	3,583	:	89.6	93.1	89.0	98.9	111.2

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Per capita animal units	1.11	1.09	1.13	: .86	.96	.92	.98	1.09
Percent of 1916-18 - average per capita <u>2</u> /				: 77.5	86.5	82.9	88.3	98.2

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Sheep	389	101.8	102.6	105.1	106.9	104.4	
All chickens	3,583	89.6	93.1	89.0	98.9	111.2	

Compiled from reports of B. A. E.

Table 4.-Livestock: Yearly and per capita 1/ production, live weight, and livestock products produced per capita, United States, 1916-18 and 1939-42

Item	1916	1917	1918 :	1939	1940	1941	1942
	<u>Million Pounds</u>						
Production net			:				
Cattle and calves <u>2/</u>	15,933	16,764	15,658	:15,097	15,583	16,718	17,860
Hogs <u>2/</u>	13,582	12,928	14,792	:17,082	17,043	17,473	21,091
Sheep and lambs <u>2/</u>	1,118	1,126	1,238	: 2,041	2,087	2,267	2,313
All chickens <u>3/</u>	2,162	2,198	2,347	: 2,783	2,753	3,003	3,397
All manufactured dairy products, milk equivalent <u>4/</u>	45,927	44,010	40,077	:62,617	65,000	69,951	70,544
Egg production, million dozens <u>5/</u>	2,400	2,308	2,333	: 3,237	3,299	3,480	4,018
	<u>Pounds</u>						
Production per capita:			:				
Cattle and calves <u>2/</u>	159.3	165.2	152.2	: 115.8	118.5	126.1	133.3
Hogs <u>2/</u>	135.8	127.4	143.8	: 131.0	129.6	131.8	157.4
Sheep and lambs <u>2/</u>	11.2	11.1	12.0	: 15.6	15.9	17.1	17.3
All chickens <u>3/</u>	21.6	21.7	22.8	: 21.3	20.9	22.6	25.4
All manufactured dairy products, milk equivalent <u>4/</u>	459.3	433.5	389.5	: 480.2	494.3	527.5	526.4
Egg production, doz. <u>5/</u>	24.0	22.7	22.7	: 24.8	25.1	26.2	30.0

1/ Includes U. S. civilian and armed forces.

2/ Net production is obtained by deducting the weight of the animals shipped into the U. S. from the weight of animals sold off of and slaughtered on farms and adding or subtracting changes in inventory weights between the beginning and end of the year.

3/ Total farm and nonfarm production.

4/ Calculated by using a fixed conversion factor.

5/ Includes farm and nonfarm production.

Compiled from reports of B. A. E.

Table 5.-Livestock: Yearly production, live weight, and livestock products produced per capita 1/ in percent of 1916-18 average, United States, 1939-42

Class of livestock	: 1916-18 :	Percent of 1916-18 average			
	: average :	1939	1940	1941	1942
Cattle and calves	: 158.9 :	72.9	74.6	79.4	83.9
Hogs	: 135.7 :	96.5	95.5	97.1	116.0
Sheep and lambs	: 11.4 :	136.8	139.5	150.0	151.8
All chickens <u>2/</u>	: 22.0 :	96.8	95.0	102.7	115.5
All manufactured dairy products milk equivalent	: 427.4 :	112.4	115.7	123.4	123.2
Egg production, doz.	: 23.1 :	107.3	108.7	113.4	129.9

1/ Includes U. S. civilian and armed forces.

2/ Total farm and nonfarm production.

Compiled from reports of B. A. E.

Table 6.-Crops (selected): Production during crop year,
United States, 1916-18 and 1939-42

Crop	Unit	1916	1917	1918	1939	1940	1941	1942
Crop production total:								
Corn	mil. bu.	2,425	2,908	2,441	2,581	2,462	2,676	3,175
Wheat	" "	635	620	904	741	813	943	981
Oats	" "	1,140	1,443	1,427	958	1,245	1,181	1,359
Barley	" "	159	182	225	278	309	362	426
Rye	" "	43	60	83	39	40	45	57
Potatoes	" "	270	399	346	342	376	356	371
Dry edible beans	mil. 100- lb. bags	7	10	10	15	17	18	20
Crop production per capita, U. S. 1/								
Corn	bu.	24.2	28.7	23.7	19.8	18.7	20.2	23.7
Wheat	"	6.3	6.1	8.8	5.7	6.2	7.1	7.3
Oats	"	11.4	14.2	13.9	7.3	9.5	8.9	10.1
Barley	"	1.6	1.8	2.2	2.1	2.4	2.7	3.2
Rye	"	.4	.6	.8	.3	.3	.3	.4
Potatoes	"	2.7	3.9	3.4	2.6	2.9	2.7	2.8
Dry edible beans	lbs.	7.2	10.0	10.1	11.6	12.8	14.0	14.6

1/ Includes U. S. civilian and armed forces.

Compiled from reports of B. A. E.

Table 7.-Crop production during crop year per capita, United States 1/,
in percent of 1916-18 average, 1939-42

Crop		1916- 1918 average	Percent of 1916-18 average 2/			
			1939	1940	1941	1942
Corn	bushels	25.6	77.3	73.2	78.9	92.6
Wheat	"	7.1	80.1	87.1	100.1	103.2
Oats	"	13.2	55.6	71.8	67.4	76.8
Barley	"	1.9	112.3	123.7	143.7	167.4
Rye	"	.6	49.3	50.7	57.0	71.3
Potatoes	"	3.3	79.6	86.6	81.2	84.0
Dry edible beans, pounds		9.1	126.9	141.1	153.3	160.9

1/ Includes U. S. civilian and armed forces.

2/ Computed from unrounded figures.

Compiled from reports of B. A. E.